

Work Order ID 102180***102180***

Page 1

May-27-13 12:40:50 PM

Item ID: D2150

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Packer Doubler, Hinge

Start Date: 5/27/13 Start Qty: 6.00

6

Cust Item ID:

Required Date: 5/31/13 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan: MCDDate: 13-05-30

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

| Draw Nbr | Revision Nbr |
|----------|--------------|
|----------|--------------|

| | |
|-------|-------|
| D2150 | Rev A |
|-------|-------|

| | |
|-----|------|
| 100 | 0.00 |
|-----|------|

| | |
|--------------|----------------|
| *100* | FLOW WATER JET |
|--------------|----------------|

Waterjet

Memo 0.00

FLOW CNC Waterjet

I-Cut as per Dwg D2150 Dwg Rev: A Prog Rev: A 2-
Deburr if necessary2024.0406 0 JmB-09-16

| | | |
|-----|---|------|
| 110 | QC2- Inspect parts off machine FAI/FAIB | 0.00 |
|-----|---|------|

110

QC

Quality Control

Memo 0.00

6 0 JmB-09-16

| | | | |
|-----|-----------------------------------|------|-----|
| 120 | QC8- Inspect parts - second check | 0.00 | DAS |
|-----|-----------------------------------|------|-----|

120

QC

Quality Control

Memo 0.00

27
9-89B G. K.6

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ **Date:** _____

| Work Order: _____ | | | | DISPOSITION | | AGAINST DEPARTMENT/PROCESS | | | | | |
|------------------------------|--------------------------|----------------|--------------------------|--|---|------------------------------------|--|--------------------------------------|--------------|--------------|--|
| | | | | Rework <input type="checkbox"/> | Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | | | |
| | | | | Scrap <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coor. <input type="checkbox"/> | Quality <input type="checkbox"/> | | | |
| | | | | Use-as-is <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | | | |
| | | | | Work Order Update <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | | | | |
| Root Cause | | Date | Step | Qty | Description of work order update or Non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector | |
| Doc/Data | <input type="checkbox"/> | | | | | | | | | | |
| Equip/Tooling | <input type="checkbox"/> | | | | | | | | | | |
| Operator | <input type="checkbox"/> | | | | | | | | | | |
| Material | <input type="checkbox"/> | | | | | | | | | | |
| Setup | <input type="checkbox"/> | | | | | | | | | | |
| Other | <input type="checkbox"/> | | | | | | | | | | |
| Process | <input type="checkbox"/> | | | | | | | | | | |
| Supplier | <input type="checkbox"/> | | | | | | | | | | |
| Training | <input type="checkbox"/> | | | | | | | | | | |
| Unapproved | <input type="checkbox"/> | | | | | | | | | | |
| FAULT CATEGORY | | | | | | | | | | | |
| Landing Gear | | | | General | | | | | | | |
| Bending | <input type="checkbox"/> | Bend | <input type="checkbox"/> | Grain | <input type="checkbox"/> | Ovalized | <input type="checkbox"/> | Pressure/Forced | | | |
| Centre Not Concentric to O/S | <input type="checkbox"/> | BOM/Route | <input type="checkbox"/> | Hardware | <input type="checkbox"/> | Over/Under tolerance | <input type="checkbox"/> | Temperature/Cure | | | |
| Cracks | <input type="checkbox"/> | Broken/Damaged | <input type="checkbox"/> | Inspection Incomplete | <input type="checkbox"/> | Part Incorrect | <input type="checkbox"/> | Weld | | | |
| Crushed/Crimped | <input type="checkbox"/> | Burrs | <input type="checkbox"/> | Instructions Incomplete/Unclear | <input type="checkbox"/> | Part Lost/Missing | <input type="checkbox"/> | Wrong Stock Pulled | | | |
| Cuffs | <input type="checkbox"/> | Contamination | <input type="checkbox"/> | Maintenance | <input type="checkbox"/> | Part Moved | <input type="checkbox"/> | | | | |
| Heat Treat | <input type="checkbox"/> | Countersink | <input type="checkbox"/> | Mislabeled | <input type="checkbox"/> | Positioned Wrong | <input type="checkbox"/> | | | | |
| Inspection Strip in Tube | <input type="checkbox"/> | Cut Too Short | <input type="checkbox"/> | Misread | <input type="checkbox"/> | Power Loss/Surge | <input type="checkbox"/> | | | | |
| Ripples in Bend | <input type="checkbox"/> | Drill Holes | <input type="checkbox"/> | Offset | <input type="checkbox"/> | Other | <input type="checkbox"/> | | | | |
| Torque Waves in Extrusion | <input type="checkbox"/> | Drawing | <input type="checkbox"/> | Out of Calibration | <input type="checkbox"/> | | <input type="checkbox"/> | | | | |
| Turning Sequence | <input type="checkbox"/> | Finish | <input type="checkbox"/> | Out of Sequence | <input type="checkbox"/> | | <input type="checkbox"/> | | | | |
| Wave/Twist in Tube | <input type="checkbox"/> | Folio | <input type="checkbox"/> | Outside Dimensions | <input type="checkbox"/> | | <input type="checkbox"/> | | | | |

Work Order ID 102180

102180

Page 2

May-27-13 12:40:50 PM

Item ID: D2150

Accept

N900040100

Setup

Start

NS1

Revision ID:

Stop

NS2

Item Name: Packer Doubler, Hinge

Start Date: 5/27/13 Start Qty: 6.00

6

Cust Item ID:

Required Date: 5/31/13 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

130

Small Fab

Small Fab

Small Fab

Memo

Deburr

0.00

DAS

27

9-08

140

140

HandFinish

Hand Finishing

Chemical Conversion Coat per QSI005 4.1

0.00

0.00

6 2013-9-08

150

150

Powdercoat

Powder Coating

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

Memo

START TIME:

1:00

0.00

OVEN TEMPERATURE:

FINISH TIME:

3200F

1:30

6x6 my 13/09/18

m126125

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

| Work Order: _____ | | | DISPOSITION | | | AGAINST DEPARTMENT/PROCESS | | | | | |
|---|---|--|---|--|--|--|---|--------------|--------------|--|--|
| | | | Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/> | Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> | Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> | Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> | Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> | | | | |
| Root Cause | Date | Step | Qty | Description of work order update or Non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector | | |
| Doc/Data <input type="checkbox"/> Equip/Tooling <input type="checkbox"/> Operator <input type="checkbox"/> Material <input type="checkbox"/> Setup <input type="checkbox"/> Other <input type="checkbox"/> Process <input type="checkbox"/> Supplier <input type="checkbox"/> Training <input type="checkbox"/> Unapproved <input type="checkbox"/> | | | | | | | | | | | |
| FAULT CATEGORY | | | | | | | | | | | |
| Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube <input type="checkbox"/> | General | | | | | | | | | | |
| | <input type="checkbox"/> Bend | <input type="checkbox"/> Grain | <input type="checkbox"/> Ovalized | <input type="checkbox"/> Pressure/Forced | | | | | | | |
| | <input type="checkbox"/> BOM/Route | <input type="checkbox"/> Hardware | <input type="checkbox"/> Over/Under tolerance | <input type="checkbox"/> Temperature/Cure | | | | | | | |
| | <input type="checkbox"/> Broken/Damaged | <input type="checkbox"/> Inspection Incomplete | <input type="checkbox"/> Part Incorrect | <input type="checkbox"/> Weld | | | | | | | |
| | <input type="checkbox"/> Burrs | <input type="checkbox"/> Instructions Incomplete/Unclear | <input type="checkbox"/> Part Lost/Missing | <input type="checkbox"/> Wrong Stock Pulled | | | | | | | |
| | <input type="checkbox"/> Contamination | <input type="checkbox"/> Maintenance | <input type="checkbox"/> Part Moved | | | | | | | | |
| | <input type="checkbox"/> Countersink | <input type="checkbox"/> Mislabeled | <input type="checkbox"/> Positioned Wrong | | | | | | | | |
| | <input type="checkbox"/> Cut Too Short | <input type="checkbox"/> Misread | <input type="checkbox"/> Power Loss/Surge | <input type="checkbox"/> Other | | | | | | | |
| | <input type="checkbox"/> Drill Holes | <input type="checkbox"/> Offset | | | | | | | | | |
| | <input type="checkbox"/> Drawing | <input type="checkbox"/> Out of Calibration | | | | | | | | | |
| | <input type="checkbox"/> Finish | <input type="checkbox"/> Out of Sequence | | | | | | | | | |
| | <input type="checkbox"/> Folio | <input type="checkbox"/> Outside Dimensions | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Work Order ID 102180***102180***

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May-27-13 12:40:50 PM

Item ID: D2150

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Packer Doubler, Hinge

Stop

NS2

Start Date: 5/27/13 Start Qty: 6.00

6

Cust Item ID:

Required Date: 5/31/13 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC3- Inspect Part Finish

0.00

160

QC

Quality Control

6x d 06/13/09/18

170

Identify as per dwg & Stock Location.

0.00

170

Packaging

Packaging

STOOS

6x

SP
B-9-20

180

QC21- Final Inspection - Work Order Release

0.00

180

QC

Quality Control

Memo

0.00

J / 06/13-09/23

B-09/80

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

| Work Order: _____ | | | DISPOSITION | | AGAINST DEPARTMENT/PROCESS | | | | | | | | | | |
|---|------|------|---|---|--|--|--|---|--|--|---------------------------------|--|--|---|--|
| | | | Rework Scrap Use-as-is Work Order Update | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Skid-tube Machining Thermoforming Large Fab | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Crosstube Small Fab Finishing Composite | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Water Jet Prod. Eng. Coor. Rec/Store/Packaging | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Engineering Quality Other | | | | |
| Part No. _____ NCR No. _____ | | | | | | | | | | | | | | | |
| Root Cause | Date | Step | Qty | Description of work order update or Non-conformance | | Initial Chief Eng | Action Description | | Sign & Date | Verification | QC Inspector | | | | |
| Doc/Data | | | | | | | | | | | | | | | |
| Equip/Tooling | | | | | | | | | | | | | | | |
| Operator | | | | | | | | | | | | | | | |
| Material | | | | | | | | | | | | | | | |
| Setup | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | |
| Process | | | | | | | | | | | | | | | |
| Supplier | | | | | | | | | | | | | | | |
| Training | | | | | | | | | | | | | | | |
| Unapproved | | | | | | | | | | | | | | | |
| FAULT CATEGORY | | | | | | | | | | | | | | | |
| Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube | | | | General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio | | | | <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions | | | | <input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge | | <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled | |

Picklist Print

May-27-13 12:40:50 PM

Page 1 / 1

Work Order ID: 102180

Parent Item: D2150

Parent Item Name: Packer Doubler, Hinge

Start Date: 5/27/13

Required Date: 5/31/13

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP C00.11.27Re-format (mpp 2101)EC
IPP Rev:D 06-08-23 Now on Waterjet

JLM

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|------------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|------------------|---------------|----------------|--------|
| M2024T3S.040 2024-T3 .040 sheet | | Purchased | No | | | 100 | sf | 386.0877 | 0.025 | 0.1578948 0.2 | | JM3-09-16 | |

| Location | Loc Qty | Loc Code |
|----------|-------------|----------|
| MAT022 | 386.0876922 | |
| 120605 | 65.8254832 | |
| 121197 | 57.187894 | |
| 122136 | 31.78 | |
| 123217 | 20.894315 | |
| 124987 | 210.4 | 124987 |

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: Date:

| Work Order: _____ | | | | DISPOSITION | | AGAINST DEPARTMENT/PROCESS | | | | | |
|------------------------------|--------------------------|----------------|--------------------------|--|---|------------------------------------|--|--------------------------------------|--------------|--------------|--|
| | | | | Rework <input type="checkbox"/> | Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | | | |
| | | | | Scrap <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coor. <input type="checkbox"/> | Quality <input type="checkbox"/> | | | |
| | | | | Use-as-is <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | | | |
| | | | | Work Order Update <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | | | | |
| Root Cause | | Date | Step | Qty | Description of work order update or Non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector | |
| Doc/Data | <input type="checkbox"/> | | | | | | | | | | |
| Equip/Tooling | <input type="checkbox"/> | | | | | | | | | | |
| Operator | <input type="checkbox"/> | | | | | | | | | | |
| Material | <input type="checkbox"/> | | | | | | | | | | |
| Setup | <input type="checkbox"/> | | | | | | | | | | |
| Other | <input type="checkbox"/> | | | | | | | | | | |
| Process | <input type="checkbox"/> | | | | | | | | | | |
| Supplier | <input type="checkbox"/> | | | | | | | | | | |
| Training | <input type="checkbox"/> | | | | | | | | | | |
| Unapproved | <input type="checkbox"/> | | | | | | | | | | |
| FAULT CATEGORY | | | | | | | | | | | |
| Landing Gear | | | | General | | | | | | | |
| Bending | <input type="checkbox"/> | Bend | <input type="checkbox"/> | Grain | <input type="checkbox"/> | Ovalized | <input type="checkbox"/> | Pressure/Forced | | | |
| Centre Not Concentric to O/S | <input type="checkbox"/> | BOM/Route | <input type="checkbox"/> | Hardware | <input type="checkbox"/> | Over/Under tolerance | <input type="checkbox"/> | Temperature/Cure | | | |
| Cracks | <input type="checkbox"/> | Broken/Damaged | <input type="checkbox"/> | Inspection Incomplete | <input type="checkbox"/> | Part incorrect | <input type="checkbox"/> | Weld | | | |
| Crushed/Crimped | <input type="checkbox"/> | Burrs | <input type="checkbox"/> | Instructions Incomplete/Unclear | <input type="checkbox"/> | Part Lost/Missing | <input type="checkbox"/> | Wrong Stock Pulled | | | |
| Cuffs | <input type="checkbox"/> | Contamination | <input type="checkbox"/> | Maintenance | <input type="checkbox"/> | Part Moved | <input type="checkbox"/> | | | | |
| Heat Treat | <input type="checkbox"/> | Countersink | <input type="checkbox"/> | Mislabeled | <input type="checkbox"/> | Positioned Wrong | <input type="checkbox"/> | | | | |
| Inspection Strip in Tube | <input type="checkbox"/> | Cut Too Short | <input type="checkbox"/> | Misread | <input type="checkbox"/> | Power Loss/Surge | <input type="checkbox"/> | | | | |
| Ripples in Bend | <input type="checkbox"/> | Drill Holes | <input type="checkbox"/> | Offset | <input type="checkbox"/> | Other | <input type="checkbox"/> | | | | |
| Torque Waves in Extrusion | <input type="checkbox"/> | Drawing | <input type="checkbox"/> | Out of Calibration | <input type="checkbox"/> | | <input type="checkbox"/> | | | | |
| Turning Sequence | <input type="checkbox"/> | Finish | <input type="checkbox"/> | Out of Sequence | <input type="checkbox"/> | | <input type="checkbox"/> | | | | |
| Wave/Twist in Tube | <input type="checkbox"/> | Folio | <input type="checkbox"/> | Outside Dimensions | <input type="checkbox"/> | | <input type="checkbox"/> | | | | |

| | | |
|-----------------------|--------------|-------------|
| DART AEROSPACE LTD | Work Order: | 102180 |
| Description: Packer. | Part Number: | D2150 |
| Inspection Dwg: D2150 | Rev: A | Page 1 of 1 |

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

27

27
180

| | | | | | |
|--------------|----------|-------------|-----------|---------------------|-----|
| Measured by: | JM | Audited by: | 9-89 | Prototype Approval: | N/A |
| Date: | 13-09-16 | Date: | 13 9 / 16 | Date: | N/A |

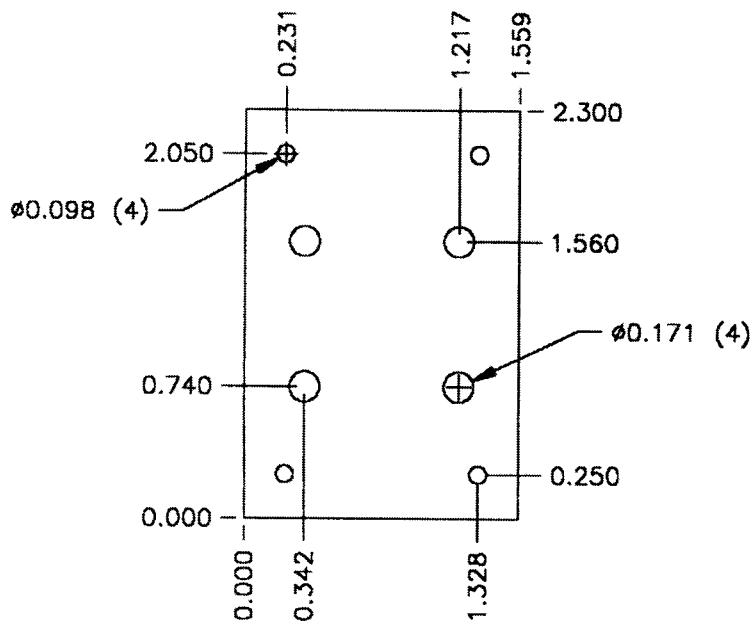
| Rev | Date | Change | Revised by | Approved |
|-----|----------|-----------|------------|----------|
| A | 04.09.28 | New Issue | KJ/JLM | SJL |



OF COPY ISSUED
BY DART

| | | | |
|------------------------|-------------------------|--|------------------------|
| DESIGN B WILLIAMS | DRAWN BY K HAND | DART AEROSPACE LTD VICTORIA INTERNATIONAL AIRPORT, CANADA | |
| CHECKED <i>B.L.</i> | APPROVED <i>B.L.</i> | DRAWING NO. D2150 | REV. A SHEET 1 OF 1 |
| DATE 95:05:01 | | TITLE PACKER | SCALE 1:1 |

RELEASED
96-6-6/13 BQ



05-05-31
27/09/2011
DRAFT
NOT FOR FABRICATION
NOT FOR ASSEMBLY
NOT FOR INSPECTION
NOT FOR TEST

MATERIAL: 2024-T3, 0.040 THICK
FINISH: WHITE POWDER COAT HI-GLOSS